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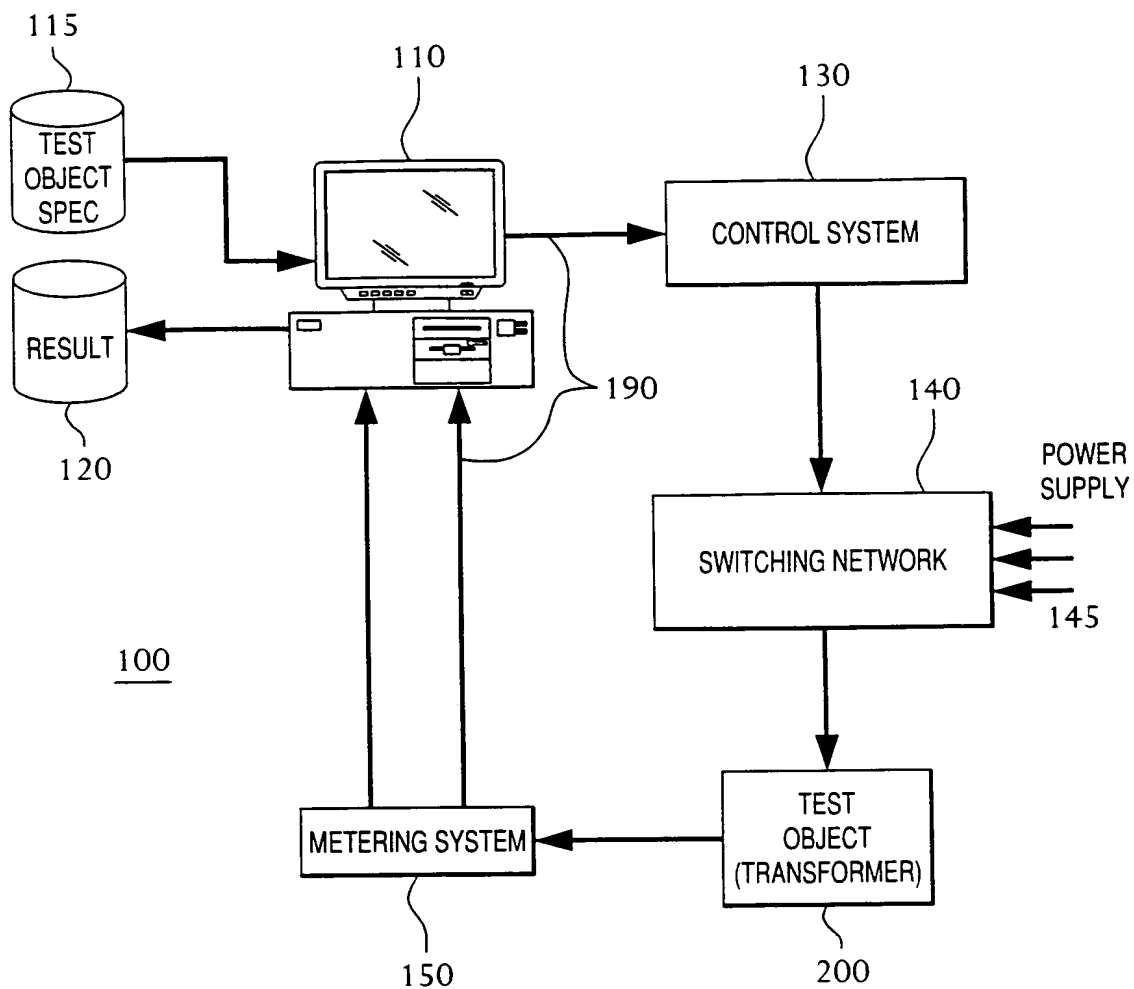


FIG. 1

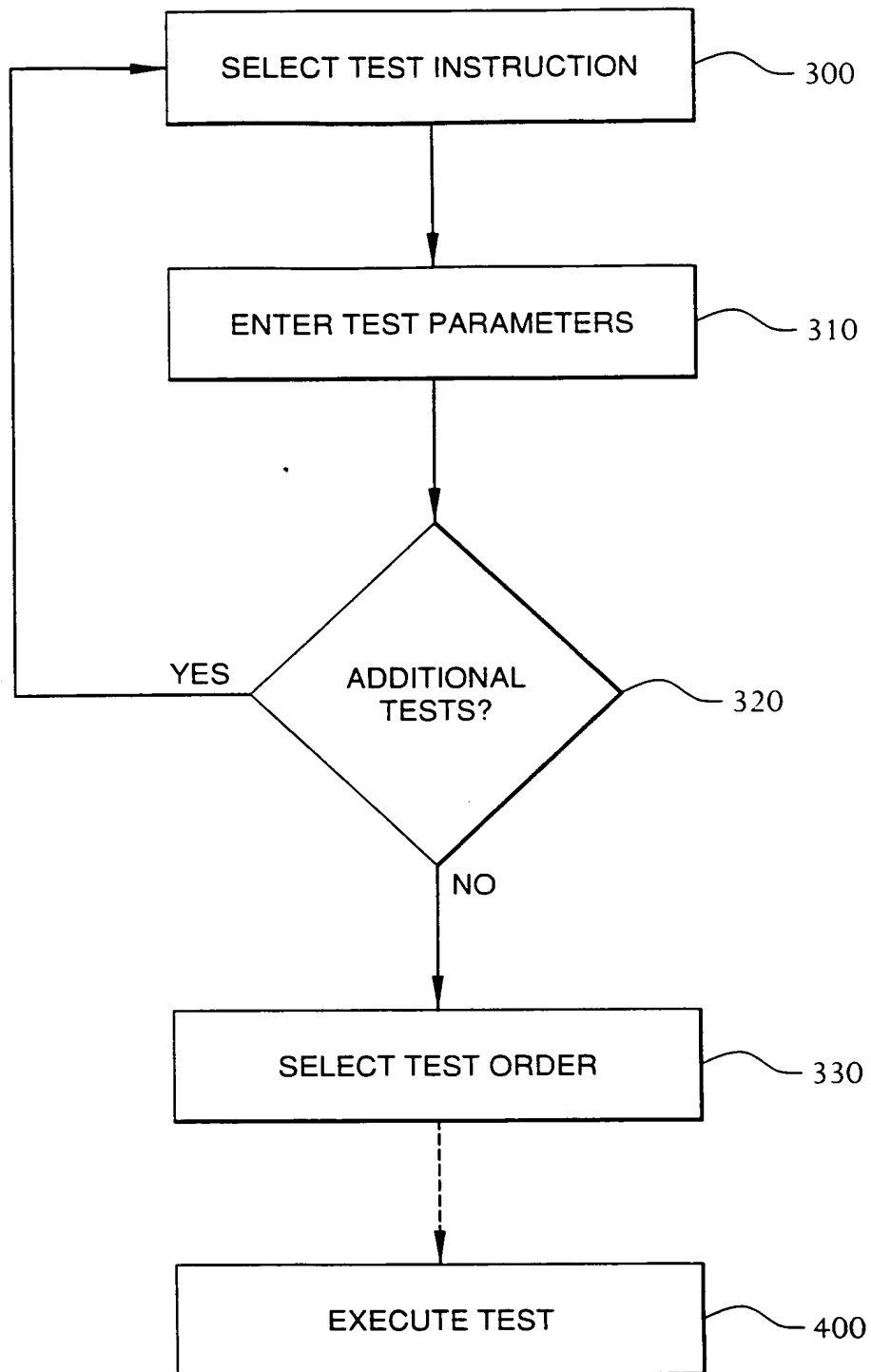


FIG. 3

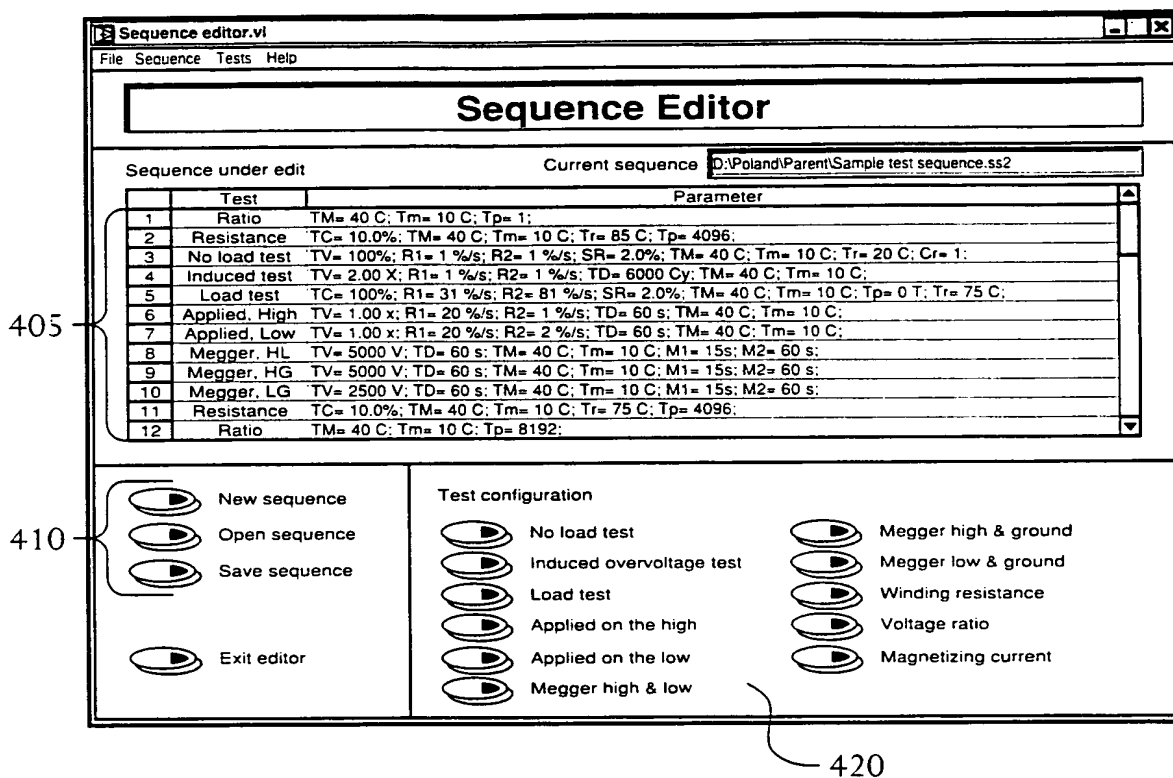


FIG. 4

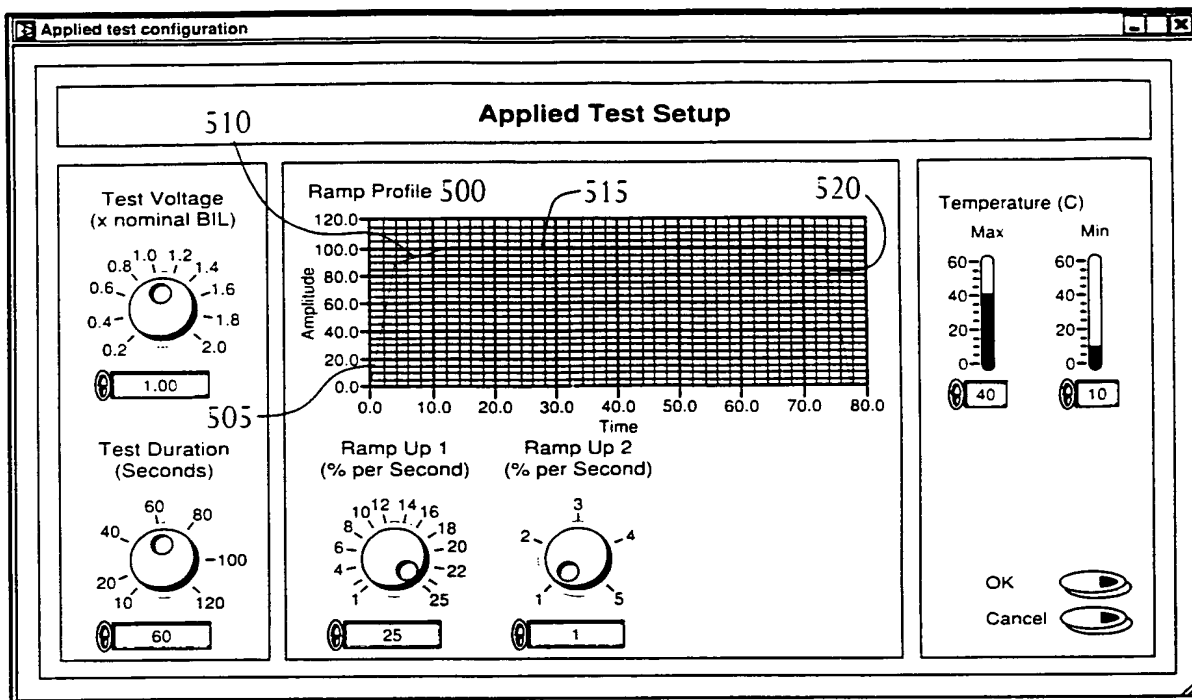


FIG. 5

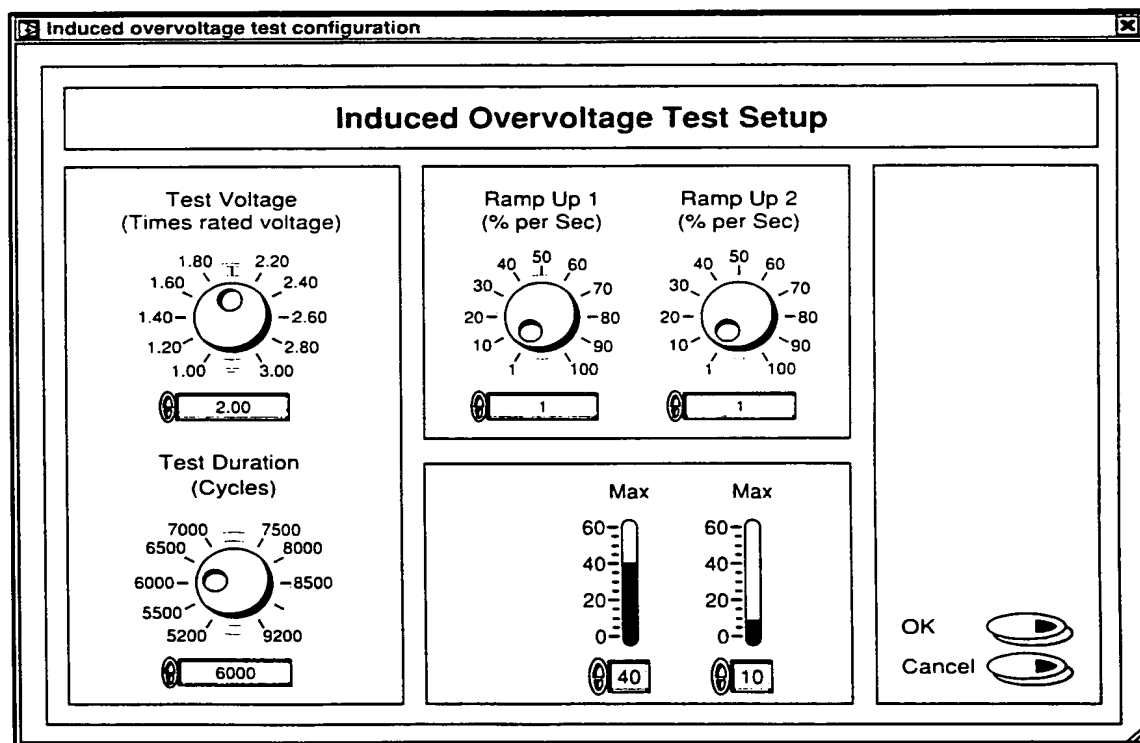


FIG. 6



Load test configuration

Load Test Setup

Test Current
(Percent of nominal current)

70 75 80
65 85
60 90
55 95
50 100

100

Ramp Up 1
(% per Sec)

40 50 60
30 70
20 80
10 90
1 100

1

Ramp Up 2
(% per Sec)

40 50 60
30 70
20 80
10 90
1 100

1

Stability Current
(Percent of test current)

2.0 2.5 3.0
1.5 3.5
1.0 4.0
0.5 4.5
0.0 5.0

2.0

Tap

Nominal

T ref

150
100
50
20

75

Temperature (C)

Max Min

60 60
40 40
20 20
0 0

40 10

OK

Cancel

FIG. 7

Setup-Mag current.vi

Magnetizing Current

Test Voltage
(V)

200 250 300 350
150 400
100 450
50 500

100

Ramp Up 1
(% per Sec)

40 50 60
30 70
20 80
10 90
1 100

1

Ramp Up 2
(% per Sec)

40 50 60
30 70
20 80
10 90
1 100

1

Stability Range
(Percent of test voltage)

2.5 3.0 3.5
2.0 4.0
1.5 4.5
1.0 5.0

2.00

Max Min

60 60
40 40
20 20
0 0

40 10

OK

Cancel

FIG. 8

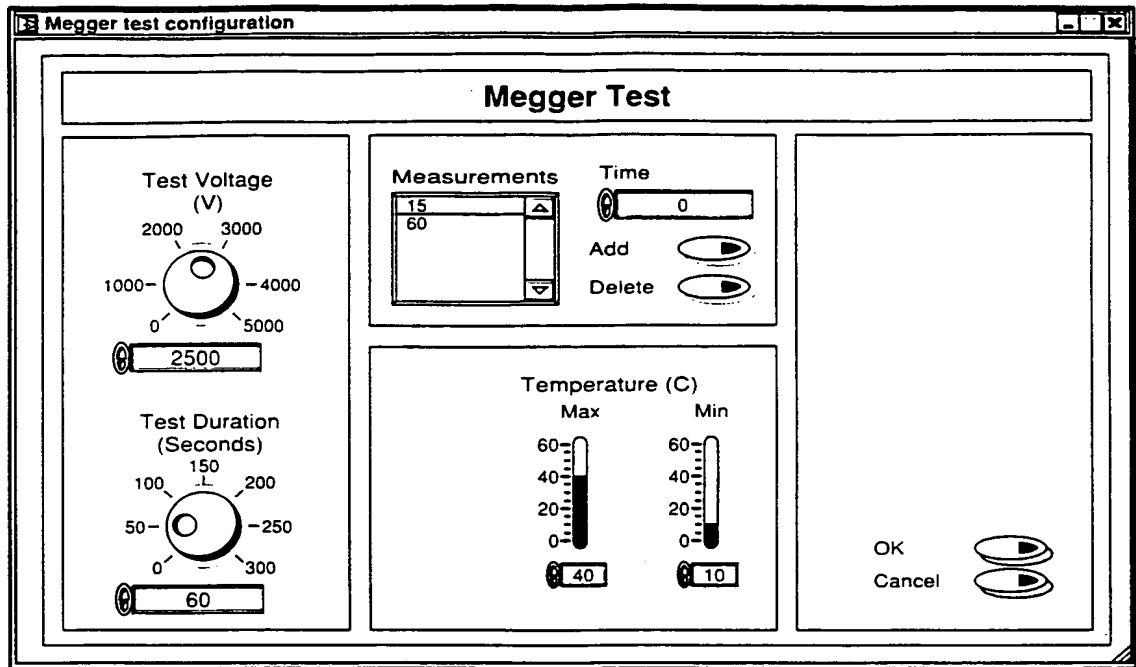


FIG. 9

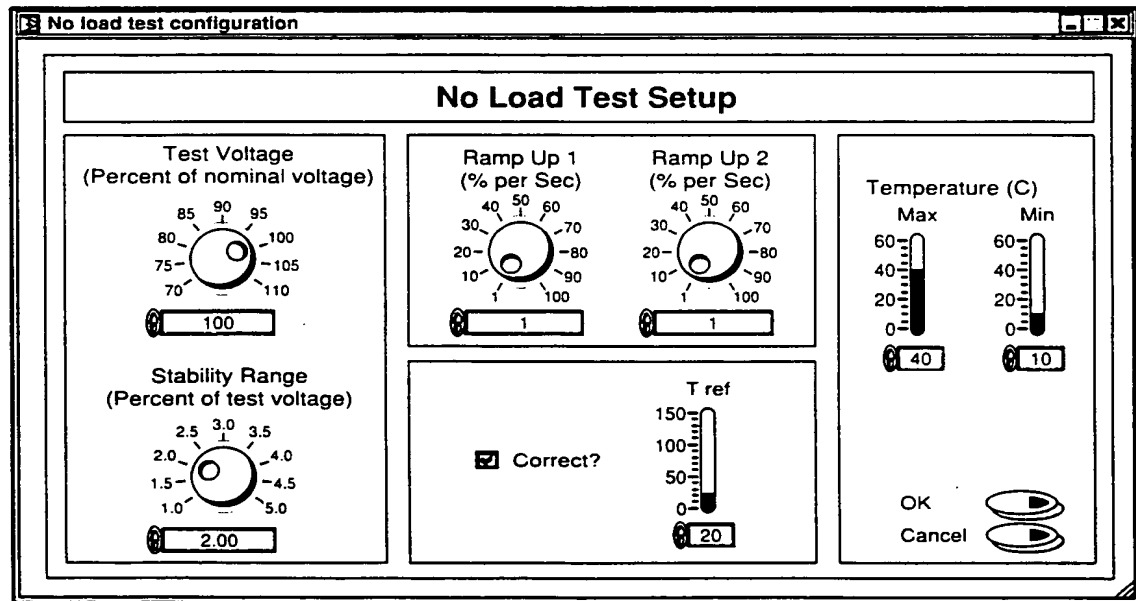


FIG. 10



Ratio test configuration

Ratio Test Setup

Taps Tested

☐ All?

Taps

Nominal

Add

Delete

Max

60
40
20
0

40

Min

60
40
20
0

10

OK

Cancel

FIG. 11

Resistance test configuration

Resistance Test Setup

Test Current (%)

5 6 7 8 9 10
4 3 2 1

10.0

T ref

150
100
50
20

75

Temperature (C)

Max

60
40
20
0

40

Min

60
40
20
0

10

Taps Tested

☐ IEC?
☐ All?

Taps

Nominal

Add

Delete

OK

Cancel

FIG. 12



Automated Test

Hardware Status

CT Tap

PT Tap

Megger switch ☐

Visible disconnect ☐

Shorting switch ☐

Resistance H switch ☐

Resistance L switch ☐

Step up tap

Output mode

Deck

Sw. Network

Output energized ☐

Emergency ☐

Error ☐

Test Results

Applied ☐

Side	Vt	Status

Mag current ☐

Vt	I	Status
0380		ERR

Induced ☐

Vt	I	Status

Megger ☐

Side	Vt	Status
HG	2000	ERR
HL	2500	ERR

Losses ☐

Load loss ☐

Vt	Imp.	Status
0396.0		ERR

No load loss ☐

Vt	Status
254.1	ERR

At 100%

Total losses 0.00

Ratio ☐

Tap	Status

Resistance ☐

Tap	Status

Temperature

50

25

0

21.26

Tester

Date

Time

Commands

Screen

Test Sequence

%

#	Test	Parameters
1	Ratio	TM= 40 C; Tm= 10 C; TP= 30
2	Resistance	TC= 50 A; TM= 40 C; Tm= 10 C; TP= 40
3	Mag current	TV= 380 V; RU= 1 V/s; AT= 1; SR= 2.0%; TM= 40 C; T
4	Load test	TC= 100 %; RU= 1 V/s; AT= 1; SR= 2.0%; TM= 40 C; T
5	No load test	TV= 105 %; RU= 1 V/s; AT= 1; SR= 2.0%; TM= 40 C; T
6	Megger, HL	TV= 2500 V; TD= 60 s; TM= 40 C; Tm= 10 C; M1= 15 s;
7	Megger, HG	TV= 2000 V; TD= 60 s; TM= 40 C; Tm= 10 C; M1= 15 s;

FIG. 13